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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,515	01/23/2001	Ernest Paul Goately	41616/VGG/B6	8569

7590 05/28/2003

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EXAMINER

BURCH, MELODY M

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 05/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/744,515

Applicant(s)

GOATLEY, ERNST PAUL

Examiner

Melody M. Burch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the spline connection of the hub to the shaft as described in the specification on pg. 3 lines 22-24. It is unclear to the Examiner based on the drawings filed 4/28/03 how the hub is able to rotate with the shaft. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Claim Objections

3. Claims 1-14 are objected to because of the following informalities:

Re: claim 1. The phrase "at least one said clutch means" should be changed to --said at least one clutch means-- to maintain consistent claim terminology. Appropriate correction is required.

Re: claim 4. The phrase "reciprocable parallel" in line 3 should be changed to --reciprocably parallel--.

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The remaining claims are objected to due to their dependency from claim 1.

Claims 11-16 are objected to because of the following informalities: the preambles are not the same as that of claims 1 and 7 from which the claims depend. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claim 1. The phrase "said gear" in line 3 from the bottom is indefinite. The phrase limits the number of gears to one, however "at least one gear" was previously claimed.

Re: claim 13. The phrase "each hub" in line 3 is indefinite. The use of the word "each" implies that more than one gear was previously claimed, however in claim 1 only "a hub" was claimed.

The remaining claims are indefinite due to their dependency from claim 1.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-9, 11, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by JP-9112636.

Re: claims 1-3, 5, 6, 7, 8, 9, 11, and 12. JP-9112636 in figure 3 a gearbox adaptor including a casing 8, a hub 41 to be engageable with a gear shaft S3 for rotation therewith; at least one piston 45B, 45F mounted within the hub; means for supplying fluid from the exterior of the hub to a first face of said piston so as to move the piston in a first direction; at least one clutch means shown immediately below the arrow of C_B adjacent the piston, part of the clutch means being engaged with the hub and a different part of the clutch means being engageable with a gear G6 locatable on the gear shaft adjacent the hub, the gear being freely rotatable relative to the shaft, the clutch means being located and arranged such that movement of the piston in the first direction inter-engages the parts of the clutch to drivingly engage the gear and the gear shaft.

Re: claim 4. JP-9112636 shows in figure 1 the clutch means comprising a clutch pack which consists of a first series of spaced plates 43 each of which is engaged with the hub for rotation therewith but which is reciprocable parallel to the longitudinal axis of the hub; and a second series of spaced plates 44 each of which is engageable with the gear G6 mounted upon the gear shaft but which is reciprocable parallel to the longitudinal axis of the hub, the second series of plates being interleaved with the plates of the first series.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-9112636 in view of US Patent 4462271 to Stieg. Stieg teaches in col. 3 lines 23-26 that either pneumatic or hydraulic fluid may be used to operate a clutch assembly. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the adaptor of JP-9112636 to have included pneumatic fluid, as taught by Stieg, in order to provide an alternate source of power to operate the piston of the clutch assembly.

10. Claims 13-16 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-9112636 in view of US Patent 4843902 to Patton et al. JP-9112636 describes the invention substantially as set forth above including the limitation of the transmissions being shifted by actuators which are operated under electromagnetic control as disclose in lines 7-9 in the solution section of the abstract, but does not specifically disclose the limitation the electronic control comprising switches, solenoid valves and a control means. Patton et al. teach the use of a fluid flow control system in the environment of a transmission control system including an electronic control means comprising two switches in col. 6 lines 39-47, solenoid valves as shown in the area of element 30 and a control means 100,110. It would have been obvious to one of ordinary skill in the art at

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the time the invention was made to have modified the electromagnetic control of JP-9112636 to have included switches, solenoid valves, and a control means, as taught by Patton et al., in order to provide a means of controlling fluid flow pressure and, consequently, the transmission power.

Response to Arguments

11. The arguments filed 4/28/03 have been considered but are not persuasive.

Applicant argues that the JP '636 does not disclose means for supplying fluid from the exterior of the hub and has added the limitation of a means for supplying fluid from the exterior of the hub particularly in a direction substantially perpendicular to the gear shaft. Applicant states that the Japanese reference appears to internally supply oil to the piston via the shaft S3 and that fluid is simply sitting in the passage along the shaft. Examiner notes that in order for fluid to sit in the passage along the shaft, it must be supplied to that passage. Examiner notes that the ports shown above element G3 in figure 3 of the Japanese reference show a means for supplying the fluid to the passage along the shaft from the exterior of the hub as shown. Examiner also notes that the ports are arranged substantially perpendicular to the gear shaft S3, therefore the Japanese reference shows the limitation of a means for supplying fluid from the exterior of the hub, particularly, in a direction substantially perpendicular to the gear shaft.

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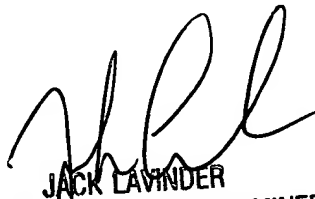
Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

mmb 5/21/03
mmb
May 21, 2003


JACK LAVINDER
SUPERVISORY PATENT EXAMINER
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